COBRTL

COBACCDWK
LIS

```
    1    0001  0  MODULE COB$ACC_DAYWEEK (
    2    0002  0                  IDENT = '1-006'          ! file: COBACCDWK.B32 EDIT:MLJ1006
    3    0003  0                  ) =
    4    0004  1  BEGIN
    5    0005  1
    6    0006  1  !****************************************************************************
    7    0007  1  !*                                                                          *
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   25    0025  1  !*                                                                          *
   26    0026  1  !*                                                                          *
   27    0027  1  !****************************************************************************
   28    0028  1
   29    0029  1  !++
   30    0030  1  !  FACILITY:      COBOL SUPPORT
   31    0031  1  !
   32    0032  1  !  ABSTRACT
   33    0033  1  !
   34    0034  1  !
   35    0035  1  !
   36    0036  1  !  ENVIRONMENT:  Vax-11 User Mode
   37    0037  1  !
   38    0038  1  !  AUTHOR: MLJ , CREATION DATE: 16-JAN-1979
   39    0039  1  !
   40    0040  1  !  MODIFIED BY:
   41    0041  1  !
   42    0042  1  !  1-001 - Original. MLJ 16-JAN-1979
   43    0043  1  !  1-002 - Added boilerplate and comments. RKR 18-JULY-1979
   44    0044  1  !  1-003 - Declare psects via library macro.  RKR 23-AUG-1979
   45    0045  1  !  1-004 - Change symbolic name of LIBRARY. RKR 1-OCT-79
   46    0046  1  !  1-005 - Cosmetic changes.   RKR 18-OCT-79
   47    0047  1  !  1-006 - Rewrite to use simplified algorithm.  MLJ 02-Aug-81
   48    0048  1  !
   49    0049  1  !--
   50    0050  1
   51    0051  1  !<BLF/PAGE>
```

COB$ACC_DAYWEEK
1-006

H 12
15-Sep-1984 23:48:40   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:21   [COBRTL.SRC]COBACCDWK.B32;1

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```
 53    0052  1  !
 54    0053  1  !  SWITCHES
 55    0054  1  !
 56    0055  1
 57    0056  1  SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
 58    0057  1
 59    0058  1  !  LINKAGES
 60    0059  1  !
 61    0060  1  !      NONE
 62    0061  1  !
 63    0062  1  !  TABLE OF CONTENTS:
 64    0063  1  !
 65    0064  1  FORWARD ROUTINE
 66    0065  1
 67    0066  1      COB$ACC_DAYWEEK : NOVALUE;
 68    0067  1
 69    0068  1  ! INCLUDE FILES
 70    0069  1  !
 71    0070  1
 72    0071  1
 73    0072  1  REQUIRE 'RTLIN:RTLPSECT' ;                   ! Macros for declaring psects
 74    0167  1  LIBRARY 'RTLSTARLE';
 75    0168  1
 76    0169  1  !
 77    0170  1  !  MACROS
 78    0171  1  !
 79    0172  1  !      NONE
 80    0173  1  !
 81    0174  1  !  EQUATED SYMBOLS
 82    0175  1  !
 83    0176  1  !      NONE
 84    0177  1  !
 85    0178  1  !  PSECT DECLARATIONS:
 86    0179  1  !
 87    0180  1  DECLARE_PSECTS (COB) ;                       ! Psects for COB$ facility
 88    0181  1
```

COB$ACC_DAYWEEK
1-006

I 12
15-Sep-1984 23:48:40   VAX-11 Bliss-32 V4.0-742
14-Sep-1984 12:10:21   [COBRTL.SRC]COBACCDWK.B32;1

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```
 90   0182   1   GLOBAL ROUTINE COB$ACC_DAYWEEK(DST): NOVALUE=
 91   0183   1   !
 92   0184   1   !++        FUNCTIONAL DESCRIPTION
 93   0185   1   !
 94   0186   1   !          Returns day_of_week as 1 - 7 corresponding to Mon. - Sun.
 95   0187   1   !
 96   0188   1   ! FORMAL PARAMETERS:
 97   0189   1   !
 98   0190   1   !          DST.wt.ds        Address of descriptor of string to receive ans.
 99   0191   1   !
100   0192   1   ! IMPLICIT INPUTS:
101   0193   1   !
102   0194   1   !          Date as supplied by $GETTIM.
103   0195   1   !
104   0196   1   ! IMPLICIT OUTPUTS:
105   0197   1   !
106   0198   1   !          NONE
107   0199   1   !
108   0200   1   ! ROUTINE VALUE:
109   0201   1   ! COMPLETION CODES:
110   0202   1   !
111   0203   1   !          NONE
112   0204   1   !
113   0205   1   ! SIDE EFFECTS:
114   0206   1   !
115   0207   1   !          NONE
116   0208   1   !
117   0209   1   !--
118   0210   1
119   0211   2   BEGIN
120   0212   2   MAP
121   0213   2       DST:             REF BLOCK[,BYTE];            ! Pointer to destination descriptor
122   0214   2   LOCAL
123   0215   2       SYSTIM:          VECTOR[2],                   ! Buffer for $GETTIM
124   0216   2       QUOTIENT,                                     ! Quotient from division
125   0217   2       REMAINDER,                                    ! Remainder (discarded)
126   0218   2       BUFFER;                                       ! Buffer for output character
127   0219   2   BUILTIN
128   0220   2       EDIV;
129   0221   2
130   0222   2
131   0223   2   !+
132   0224   2   ! Get the system date and time.  Divide by the number of least significant
133   0225   2   ! bits in a day (864 x 10**9) to get the number of days since 17-Nov-1858.
134   0226   2   ! Bias this result to account for day 0 being a Wednesday.  Then, take the
135   0227   2   ! result modulo 7 to get the day of the week such that Monday results in 0.
136   0228   2   ! Finally, bias the result by ASCII '1' to get the answer as desired and
137   0229   2   ! return it.
138   0230   2   !-
139   0231   2   $GETTIM(TIMADR=SYSTIM);
140   0232   2   EDIV(%REF(1000000000), SYSTIM, QUOTIENT, REMAINDER);          ! Div by 10**9
141   0233   2   QUOTIENT = .QUOTIENT / 864;                                   ! Finish
142   0234   2   BUFFER = ((.QUOTIENT + 2) MOD 7) + %C'1';
143   0235   2   CH$COPY(1, BUFFER, %C' ', .DST[DSC$W_LENGTH], .DST[DSC$A_POINTER]);
144   0236   1   END;
```

```
                                                                    .TITLE  COB$ACC_DAYWEEK
                                                                    .IDENT  \1-006\

                                                                    .EXTRN  SYS$GETTIM

                                                                    .PSECT  _COB$CODE,NOWRT,  SHR,  PIC,2

                                                003C 00000          .ENTRY  COB$ACC_DAYWEEK, Save R2,R3,R4,R5      ; 0182
                                     5E      0C  C2 00002          SUBL2   #12, SP
                                  04 AE      9F 00005          PUSHAB  SYSTIM                                  ; 0231
                     00000000G 00  01 FB 00008          CALLS   #1, SYS$GETTIM                           ; 0232
           50          51      04 AE 3B9ACA00 8F 7B 0000F          EDIV    #1000000000, SYSTIM, QUOTIENT, REMAINDER ; 0232
                               51 00000360 8F C6 00019          DIVL2   #864, QUOTIENT                           ; 0233
           7E          02      51      01 7A 00020          EMUL    #1, QUOTIENT, #2, -(SP)                  ; 0234
           50          50      8E      07 7B 00025          EDIV    #7, (SP)+, R0, R0
                               6E      31 A0 9E 0002A          MOVAB   49(R0), BUFFER                          ; 0235
                               50      04 AC D0 0002E          MOVL    DST, R0
           60          20      6E      01 2C 00032          MOVC5   #1, BUFFER, #32, (R0), a4(R0)
                               04      B0      00037
                                       04 00039          RET                                             ; 0236
```

; Routine Size: 58 bytes,   Routine Base: _COB$CODE + 0000

; 145   0237 1
; 146   0238 0 END ELUDOM

;
;   PSECT SUMMARY
;
;   Name   Bytes   Attributes
;
; _COB$CODE   58 NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

;   Library Statistics
;
;   -------- Symbols --------   Pages   Processing
;   File   Total   Loaded   Percent   Mapped   Time
;
; _255DUA28:[SYSLIB]STARLET.L32;1   9776   5   0   581   00:00.7

;   COMMAND QUALIFIERS
;
;   BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACE/LIS=LIS$:COBACCDWK/OBJ=OBJ$:COBACCDWK MSRC$:COBACCDWK/UPDATE=(ENH$:COBACCDWK

```
;               )

; Size:             58 code + 0 data bytes
; Run Time:            00:02.4
; Elapsed Time:        00:13.8
; Lines/CPU Min:       5876
; Lexemes/CPU-Min: 20000
; Memory Used:  42 pages
; Compilation Complete
```

TYPEMAIN
LIS

COBPROLOG
REQ

COBACCDAT
LIS

COBACCDWK
LIS

UNLOCK
LIS

UTILSUBS
LIS

INTPAR
SDL

COBDEF
REQ

COBACCDAY
LIS

COBACCECV
LIS

COBRTL

COBLNK
REQ

COBRTL
MAP